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EXAMINER	
SHELEHEDA, JAMES R	

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/493,405	MILLET ET AL.	
	Examiner	Art Unit	
	James Sheleheda	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12* is/are allowed.

6)☒ Claim(s) *1-11 and 13-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-11 and 13-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Data-Over-Cable Service Interface Specifications (DOCSIS) (SP-RFI-I05-991105) (of record) in view of Schmidt et al. (Schmidt) (5,939,887) (of record).

As to claim 1, DOCSIS discloses a method of testing a cable network (using range requests; see table 7-5 on page 103), using one or more cable modems, while allowing live data traffic (wherein plural modems share a channel and are assigned time slots; see DOCSIS at page 17, lines 31-36 and wherein range requests are assigned to specific time slots in transmission; page 94, lines 21-23), the method comprising:

(a) identifying a group of time increments (mini-slots; page 48, lines 9-16), associated with live data transmission (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113), during which cable modems on the network are not scheduled to transmit data (wherein a transmission region is assigned to a particular cable modem for performing a range request; page 94, lines 21-23 and page 107, lines 15-20);

(b) instructing a first one of the one or more cable modems to send a first signal (range request; page 107, lines 15-20) of a first frequency (wherein the CMTS sends UCD messages to determine the transmission frequency of the modem; page 100, lines 3-18) at a first power (wherein range request power adjustments begin at a minimum value; page 107, lines 3-7) during a first one of the time increments (wherein the CMTS must periodically assign a time period to the modem to perform a range request; page 107, lines 15-20) while the first cable modem is on line and engaged in live data transmission (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113);

(c) measuring the power of the first signal received at a specified location on the cable network (wherein the power must be measured to see if it is within the desired range or must be corrected; see table 7-13 on page 113; page 94, lines 15-19);

(d) instructing the first cable modem to send a second signal of a second frequency during an available time increment (wherein the CMTS tells the cable modem to adjust it's frequency and send another range request; page 94, lines 15-19 and 25-27) while the first cable modem is on line and engaged in live data transmission (during a periodic range request taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113);

(e) measuring the power of the second signal received at a specified location on the cable network (wherein the power must be measured to see if it is within the desired range or must be further adjusted; see table 7-13 on page 113; page 94, lines 15-19).

While DOCSIS discloses measuring the power of the first modem at the first and second frequencies, it fails to specifically disclose recording a power versus frequency spectrum.

In an analogous art, Schmidt discloses a system for testing a cable network (Fig. 2; column 4, lines 10-25) wherein the cable headend will use a spectrum analyzer to measure the signal magnitude (power) levels at each frequency (power versus frequency spectrum, see Fig. 3, step 64; column 7, lines 17-29) and then record the measured values (Fig. 3, step 80; column 7, lines 64-67) for the benefit of allowing the measured values to be recalled and displayed at a later time (column 8, lines 5-7).

It would have been obvious to one of ordinary skill in the art to modify the DOCSIS method to include recording a power versus frequency spectrum, as taught by Schmidt, for the typical benefit of allowing the power and frequency values acquired from testing a cable modem to be recalled and displayed at a later time.

As to claim 2, DOCSIS and Schmidt disclose at the specified location (the CMTS), measuring the power of a plurality of additional signals (range requests) generated by the first cable modem at a plurality of additional frequencies (wherein additional range requests are transmitted at adjusted frequencies until the ranging is successful; see DOCSIS at page 94, lines 12-27).

As to claim 3, DOCSIS and Schmidt disclose wherein the plurality of additional signals generated by the first cable modem are sent during a plurality of additional time

increments (wherein each range request has it's own assigned time interval; see DOCSIS at page 107, lines 15-20).

As to claim 4, DOCSIS and Schmidt disclose, at a specified location (at the CMTS), measuring (wherein the power must be measured to see if it is within the desired range or must be further adjusted; see DOCSIS at table 7-13 on page 113; page 94, lines 15-19) and recording a frequency versus power spectrum (see Schmidt at Fig. 3, step 80; column 7, lines 64-67) of a second one of the cable modems (wherein range requesting must be performed for all modems; page 107, lines 15-20) during available time increments (wherein a transmission region is assigned to a particular cable modem for performing a range request; page 94, lines 21-23 and page 107, lines 15-20).

As to claim 5, DOCSIS and Schmidt disclose

(i) determining a deviation between the measured power of the first signal at the specified location (wherein the power must be measured to see if it is within the desired range or must be further adjusted; see DOCSIS at table 7-13 on page 113; page 94, lines 15-19), and an expected value of the measured power at that location (wherein the deviation between the received power and the desired power is determined and transmitted to the modem; see DOCSIS at 21-22);

(ii) instructing a first cable modem to send another signal at the first frequency, but this time at a power adjusted from the first power (the CMTS sends a range

response instructing just the power to be adjusted; see DOCSIS at page 94, lines 15-27) by the magnitude of the deviation (wherein the power adjust information is the deviation between the received power and the desired power; see DOCSIS at page 73, lines 21-22); and

(iii) measuring (wherein the power must be measured to see if it is within the desired range or must be further adjusted; see DOCSIS at table 7-13 on page 113; page 94, lines 15-19) and recording the power of the other signal (see Schmidt at Fig. 3, step 80; column 7, lines 64-67), at the specified location on the cable network (wherein measurements are taken at the CMTS in the headend; see DOCSIS at Page 3, Fig. 1-2; page 73, lines 21-22 and page 94, lines 15-19).

As to claim 6, DOCSIS and Schmidt disclose repeating (i)-(iii) a number of times (wherein the ranging request be periodically repeated; page 71, lines 13-15) to obtain statistical data (wherein storing the repeated ranged requests inherently comprises statistical data).

As to claim 7, DOCSIS and Schmidt disclose wherein the testing determines whether the cable network is in compliance with a cable network standard (wherein range request testing verifies compliance with tolerance limits set out in the DOCSIS standard; see DOCSIS page 113, Fig. 7-13).

As to claim 8, DOCSIS and Schmidt disclose wherein the testing determines whether the cable network meets DOCSIS requirements (wherein range request testing verifies compliance with tolerance limits set out in the DOCSIS standard; see DOCSIS page 113, Fig. 7-13), and wherein instructing the first cable modem to send a first signal comprises sending a DOCSIS ranging request from the first cable modem (wherein the modem sends a range request upon receipt of a Station Maintenance region; see DOCSIS at page 94, lines 21-23).

As to claim 9, DOCSIS and Schmidt disclose identifying a range of frequencies (an upstream channel which inherently covers a ranges) at which the one or more cable modems are to send signals (wherein a channel is identified for a cable modem to send signals over; see DOCSIS at page 100, lines 9-18).

As to claim 10, DOCSIS and Schmidt disclose wherein the range of frequencies spans at least a substantial portion of the upstream bandwidth allotted to cable modems (wherein one of the upstream channels is allotted to the modem; see DOCSIS at page 100, lines 9-18).

As to claim 11, DOCSIS and Schmidt disclose wherein the range of frequencies includes one or more frequencies in a frequency sub-band (wherein the modem uses one of the plurality of possible upstream channels; see DOCSIS at page 100, lines 9-18) over which cable modems on the cable network are currently sending data (wherein

plural modems share the channel and are assigned time slots; see DOCSIS at page 17, lines 31-36).

As to claim 13, DOCSIS discloses a method of testing a cable network (using range requests; see table 7-5 on page 103), while allowing live data traffic (wherein plural modems share a channel and are assigned time slots; see DOCSIS at page 17, lines 31-36 and wherein range requests are assigned to specific time slots in transmission; page 94, lines 21-23), the method comprising:

(a) instructing a first cable modem to send signals (range requests; page 107, lines 15-20) of a defined frequency (1. wherein the CMTS sends UCD messages to determine the transmission frequency of the modem; page 100, lines 3-18; 2. wherein the CMTS tells the cable modem to adjust it's frequency and send another range request; page 94, lines 15-19 and 25-27) and power (wherein range request power adjustments begin at a minimum value and increment in set values; page 107, lines 3-7) during a group of time increments (mini-slots; page 48, lines 9-16) at which times cable modems on the network are not scheduled to transmit data (wherein a transmission region is assigned to a particular cable modem for performing a range request; page 94, lines 21-23 and page 107, lines 15-20) while the first cable modem is on line and engaged in live data transmission (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113);

(b) measuring the power of the signal from the first cable modem (wherein the power must be measured to see if it is within the desired range or must be corrected; see table 7-13 on page 113; page 94, lines 15-19);

(c) instructing a second cable modem (wherein range requesting must be performed for all modems; page 107, lines 15-20) to send signals of a defined frequency (1. wherein the CMTS sends UCD messages to determine the transmission frequency of the modem; page 100, lines 3-18; 2. wherein the CMTS tells the cable modem to adjust it's frequency and send another range request; page 94, lines 15-19 and 25-27) and power (wherein range request power adjustments begin at a minimum value and increment in set values; page 107, lines 3-7) during a second group of time increments (mini-slots; page 48, lines 9-16) at which times cable modems on the network are not scheduled to transmit data (wherein a transmission region is assigned to a particular cable modem for performing a range request; page 94, lines 21-23 and page 107, lines 15-20) while the second cable modem is on line and engaged in live data transmission (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113); and

(d) measuring the power of the signal from the second cable modem (wherein the power must be measured to see if it is within the desired range or must be further adjusted; see table 7-13 on page 113; page 94, lines 15-19).

While DOCSIS discloses measuring the power of the signals from the first and second modems, it fails to specifically disclose recording the power.

In an analogous art, Schmidt discloses a system for testing a cable network (Fig. 2; column 4, lines 10-25) wherein the cable headend will use a spectrum analyzer to measure the signal magnitude (power) levels at each frequency (Fig. 3, step 64; column 7, lines 17-29) and then record the measured values (Fig. 3, step 80; column 7, lines 64-67) for the benefit of allowing the measured values to be recalled and displayed at a later time (column 8, lines 5-7).

It would have been obvious to one of ordinary skill in the art to modify the DOCSIS method to include recording the power, as taught by Schmidt, for the typical benefit of allowing the power and frequency values acquired from testing a cable modem to be recalled and displayed at a later time.

As to claim 14, DOCSIS and Schmidt disclose wherein the signals from the first and second cable modems are measured at a single location on the cable network (wherein the signals are measured at the CMTS; see DOCSIS at Page 3, Fig. 1-2; page 73, lines 21-22 and page 94, lines 15-19).

As to claim 15, DOCSIS and Schmidt disclose wherein the testing determines whether the cable network is in compliance with requirements of DOCSIS (wherein DOCSIS range requests verify compliance with DOCSIS tolerance limits; see DOCSIS page 113, Fig. 7-13).

As to claim 16, DOCSIS and Schmidt disclose identifying a range of frequencies (an upstream channel which inherently covers a ranges) at which the first and second cable modems are to send signals (wherein a channel is identified for every cable modem to send signals over; see DOCSIS at page 100, lines 9-18).

As to claim 17, DOCSIS and Schmidt disclose wherein the range of frequencies spans at least a substantial portion of the upstream bandwidth allotted to cable modems (wherein one of the upstream channels is allotted to the modem; see DOCSIS at page 100, lines 9-18).

As to claim 18, DOCSIS and Schmidt disclose wherein the range of frequencies includes one or more frequencies in a frequency sub-band (wherein the modem uses one of the plurality of possible upstream channels; see DOCSIS at page 100, lines 9-18) over which cable modems on the cable network are currently sending data (wherein plural modems share the channel and are assigned time slots; see DOCSIS at page 17, lines 31-36).

As to claim 19, DOCSIS discloses a cable network headend (Page 3, Fig. 1-2) allowing testing of the cable network (using range requests; see table 7-5 on page 103), the headend comprising:

(a) an amplitude detector that can measure, at a specified location in the cable network (at the CMTS), the amplitude of a signal received from a cable modem in the

cable network (wherein a detector must be present in the headend for the power level of signals at the CMTS to be measured; Page 3, Fig. 1-2; page 73, lines 21-22 and page 94, lines 15-19);

(b) a MAC layer means (page 17, lines 23-39) for identifying a group of time increments (mini-slots; page 48, lines 9-16) associated with live data transmissions (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113), during which cable modems on the cable network are not scheduled to transmit data (wherein a transmission region is assigned to a particular cable modem for performing a range request; page 94, lines 21-23 and page 107, lines 15-20); and

(c) test logic means (wherein some means must be present to perform the MAC range requests) for instructing a cable modem on the cable network to send signals at at least two different frequencies (1. wherein the CMTS sends UCD messages to determine the transmission frequency of the modem; page 100, lines 3-18; 2. wherein the CMTS tells the cable modem to adjust it's frequency and send another range request; page 94, lines 15-19 and 25-27) during one or more time increments (transmission regions assigned to the cable modem for performing the range requests; page 94, lines 21-23 and page 107, lines 15-20) while the cable modem is on line and engaged in live data transmission (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113).

While DOCSIS discloses measuring the power of the signals at said different frequencies, it fails to specifically disclose recording the power.

In an analogous art, Schmidt discloses a system for testing a cable network (Fig. 2; column 4, lines 10-25) wherein the cable headend will use a spectrum analyzer to measure the signal magnitude (power) levels at each frequency (Fig. 3, step 64; column 7, lines 17-29) and then record the measured values (Fig. 3, step 80; column 7, lines 64-67) for the benefit of allowing the measured values to be recalled and displayed at a later time (column 8, lines 5-7).

It would have been obvious to one of ordinary skill in the art to modify the DOCSIS system to include recording the power, as taught by Schmidt, for the typical benefit of allowing the power and frequency values acquired from testing a cable modem to be recalled and displayed at a later time.

As to claim 20, DOCSIS and Schmidt disclose an upstream receiver (see DOCSIS at page 3, Figure 1-2) in communication with the amplitude detector (wherein measurements are made of received range requests at the CMTS; see DOCSIS at Page 3, Fig. 1-2; page 73, lines 21-22 and page 94, lines 15-19); and

a downstream transmitter (see DOCSIS at page 3, Figure 1-2) in communication with the MAC layer means (where MAC messages are sent transmitted to the cable modems; see DOCSIS at page 17, lines 26-29).

As to claim 21, DOCSIS and Schmidt disclose wherein the test logic means selects one or more cable modems in the cable network to generate signals (wherein every cable modem is eventually selected to transmit; see DOCSIS at page 107, lines 15-20) at multiple frequencies (wherein a modem must adjust it frequency and transmit another range request; see DOCSIS at page 94, lines 15-27).

As to claim 22, DOCSIS and Schmidt disclose wherein the test logic means selects multiple cable modems (wherein every cable modem is eventually selected to transmit; see DOCSIS at page 107, lines 15-20) and the individual cable modems reside at separate geographic regions (wherein every individual cable modem must reside at some separate geographic region, e.g. a subscribers home, a room in that home, or simply the physical location the modem itself).

As to claim 23, DOCSIS and Schmidt disclose wherein at least one of the frequencies at which the cable modem sends signals is within a frequency band (wherein the modem uses one of the plurality of possible upstream channels; see DOCSIS at page 100, lines 9-18) over which cable modems on the cable network are currently sending data (wherein plural modems share the channel and are assigned time slots; see DOCSIS at page 17, lines 31-36).

As to claim 24, DOCSIS and Schmidt disclose wherein the test logic means determines one power versus frequency spectra of one cable modem in the cable

network (wherein the cable modem power is measured at a known frequency; see DOCSIS at page 73, lines 21-22, page 94, lines 15-19 and page 73, lines 10-11) whether the cable network complies with a cable network standard (wherein DOCSIS range requests verify compliance with DOCSIS tolerance limits; see DOCSIS page 113, Fig. 7-13).

As to claim 25, DOCSIS discloses a cable network headend (Page 3, Fig. 1-2) allowing testing of the cable network (using range requests; see table 7-5 on page 103), the headend comprising:

(a) an amplitude detector that can measure, at a specified location in the cable network (at the CMTS), the amplitude of a signal received from a cable modem in the cable network (wherein a detector must be present in the headend for the power level of signals at the CMTS to be measured; Page 3, Fig. 1-2; page 73, lines 21-22 and page 94, lines 15-19);

(b) one or more processors (wherein a cable headend inherently contains a processor) configured to

(i) identify a group of time increments (mini-slots; page 48, lines 9-16), associated with live data transmissions (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113), during which cable modems on the cable network are not scheduled to transmit data (wherein a transmission region is

assigned to a particular cable modem for performing a range request; page 94, lines 21-23 and page 107, lines 15-20) and

(ii) to generate instructions to cause specific cable modems (wherein specific modems receive their own ranging opportunity; page 107, lines 15-20) on the cable network to transmit signals of specified power and frequency (wherein the CMTS tells the cable modems to adjust their frequency and power to specified values and send a more range requests; page 94, lines 15-19 and 25-27) while the cable modems are on line and engaged in live data transmission (periodic range requests taking place after the modem is connected with the network; page 107 at 7.2.4.2, page 112 at 7.2.12 and Fig. 7.13 on page 113), which signals can be measured by the amplitude detector (wherein the power levels of the signals at the CMTS are measured; Page 3, Fig. 1-2; page 73, lines 21-22 and page 94, lines 15-19).

While DOCSIS discloses measuring power and frequency data for the specified cable modems, it fails to specifically disclose memory to record the data.

In an analogous art, Schmidt discloses a system for testing a cable network (Fig. 2; column 4, lines 10-25) wherein the cable headend will use a spectrum analyzer to measure the signal magnitude (power) levels at each frequency (Fig. 3, step 64; column 7, lines 17-29) and then record the measured values (Fig. 3, step 80; column 7, lines 64-67) in memory (Fig. 2, 50) for the benefit of allowing the measured values to be recalled and displayed at a later time (column 8, lines 5-7).

It would have been obvious to one of ordinary skill in the art to modify the DOCSIS system to include memory to record the data, as taught by Schmidt, for the typical benefit of allowing the power and frequency values acquired from testing a cable modem to be recalled and displayed at a later time.

As to claim 26, DOCSIS and Schmidt disclose a transmitter (see DOCSIS at page 3, Figure 1-2) and a receiver (see DOCSIS at page 3, Figure 1-2).

As to claim 27, DOCSIS and Schmidt disclose wherein the power and frequency data are power versus frequency spectra (wherein the data is stored as a power versus frequency spectrum; see Schmidt at Fig. 3, steps 64 and 80; column 7, lines 17-29 and lines 64-67) over a range of upstream transmission frequencies for the specific cable modems (wherein the measured values correspond to a plurality of received signals as the cable modems adjust their frequency and power and send a plurality of range requests; page 94, lines 15-19 and 25-27).

Response to Arguments

3. Applicant's arguments with respect to claims 1-11 and 13-27 have been considered but are moot in view of the new ground(s) of rejection.

Specifically, on page 8, paragraph 1, applicant argues that DOCSIS teaches wherein a cable modem must wait until a range request is successful and cannot join "normal data traffic."

In response, applicant is directed to the rejections above for the newly amended claims. While initial ranging does occur before a modem comes online and joins the data traffic, periodic ranging is constantly reoccurring as long as the modem in online and connected to continually test the connections and network. See the rejections above.

Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowable subject matter:

Claim 12 is allowable because the prior art fails to teach or suggest a method of testing a cable network, using one or more cable modems on the cable network, while allowing live data traffic, the method comprising:

(a) identifying a group of time increments during which cable modems on the network are not scheduled to transmit data;

(b) instructing a first one of the one or more cable modems to send a first signal of a first frequency at a first power during a first one of the time increments;

(c) measuring the power of the first signal received at a specified location on the cable network;

(d) instructing the first cable modem to send a second signal of a second frequency during an available time increment;

(e) measuring the power of the second signal received at the specified location on the cable network; and

(f) recording a power versus frequency spectrum of the first modem at at least the first and second frequencies,

wherein the one or more cable modems are selected by a method comprising: identifying separate geographic regions of the cable network for testing; and selecting at least one cable modem at each geographic location.

A background search found similar prior art, however, not completely as claimed.

For example, Data-Over-Cable Service Interface Specifications (DOCSIS) (SP-RFI-I05-991105) discloses a method of testing a cable network by instructing **all** modems to transit test signals on a periodic basis. DOCSIS fails, however, to specifically disclose **wherein the one or more cable modems are selected by a method comprising: identifying separate geographic regions of the cable network for testing; and selecting at least one cable modem at each geographic location.**

Chen et al. (6,032,019) discloses a method of testing a cable network by instructing modems to transmit test signals across a range of defined powers and frequencies. Chen fails, however, to specifically disclose **wherein the one or more cable modems are selected by a method comprising: identifying separate geographic regions of the cable network for testing; and selecting at least one cable modem at each geographic location.**

Ortel (5,712,897) discloses a method of detecting a fault in a cable system based upon the geographic locations of subscriber locations experiencing problems. Ortel fails, however, to specifically disclose **wherein the one or more cable modems are selected by a method comprising: identifying separate geographic regions of the cable network for testing; and selecting at least one cable modem at each geographic location.**

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information

and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

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_____

Signature: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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